

REMARKS

Initially, Applicants would like to express their appreciation to the Examiner for the detailed Official Action provided. Upon entry of the present Amendment claims 1-22 will have been canceled, claims 23-25 will have been amended and new claims 26 and 27 will have been added. All five pending claims 23-27 are independent claims. Applicants respectfully request reconsideration of the outstanding rejections, and allowance of all the claims pending in the present application.

SUMMARY OF THE OFFICE ACTION

In the Official Action, claims 14-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,654,728 to KANAZAWA et al. (hereinafter “KANAZAWA”) in view of an article by LAI entitled “Resonant Snubber-Based Soft-Switching Inverters for Electric Propulsion Drives”, (hereinafter “LAI”).

CLAIMS 14-22

In this Amendment, claims 14-22 have been cancelled without prejudice or disclaimer, only for the purpose of advancing prosecution of the present application. Accordingly, the rejection of claims 14-22 is moot.

CLAIMS 23-25

Claims 23-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over KANAZAWA in view of LAI. In the Official Action, there has been an acknowledgment that the KANAZAWA reference does not disclose “a capacitance of approximately five to ten times

as much as that of the parasitic capacitance of the first switching element.” The Office Action further alleges, however, that it would be obvious to modify the teachings of KANAZAWA and LAI such that the capacitive frequency reducers had a capacitance of approximately five to ten times as much as that of the parasitic capacitance of the first switching element. The Office Action still further alleges that such a range absent any criticality is generally achievable through routine optimization/experimentation.

Applicants respectfully traverse the rejection and the allegation of the absence of any criticality associated with the claimed capacitance. Without acquiescing to the correctness of the rejection, Applicants have further amended the “wherein” clauses of independent claims 23-25 to recite, “wherein said frequency reducer has a capacitance of approximately five to ten times as much as that of the parasitic capacitance of said first switching element, to suppress unwanted electromagnetic wave radiation of 30 MHz or higher.” This feature appears at least in paragraphs [0030, 0054, 0092, 0095, 0101, 0102, 0104, 0105, 0115, 0121, 0122, 0133, 0138, 0139, 0149, 0152, 0153, 0156, 0174, 0175] of the published application. Applicant’s submit that neither KANAZAWA nor LAI specifically disclose the suppression of electromagnetic wave radiation of 30 MHz or higher. KANAZAWA fails to disclose or suggest any suppression of electromagnetic wave radiation. LAI mentions that high frequency electromagnetic interference (“EMI”) is greatly reduced, but there is no specific reference to unwanted electromagnetic wave radiation of 30 MHz or higher. Accordingly, Applicants respectfully submit that claims 24-25 are patentable over the cited prior art, because the claimed capacitance ranges are not an obvious modification that is achievable through routine optimization/experimentation.

THERE IS NO REASON TO COMBINE THE KANAZAWA AND LAI REFERENCES

As stated above, claims 23-25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over KANAZAWA in view of LAI. It is respectfully submitted that the KANAZAWA and LAI references taken alone or as a whole do not even recognize the problem solved by the Applicants' claimed invention, and that one skilled in the art would not combine the teachings of KANZAWA and LAI in order to solve the unrecognized problem. The Applicants' claimed invention of claims 23-25 solves the problem of suppressing unwanted electromagnetic wave radiation of 30 MHz or higher in a display panel having a drive circuit.

Applicant's submit that if the skilled artisan was to follow the teachings of the KANAZAWA and LAI references (as suggested by the Examiner), there would be no reason to combination the cited references. For example, KANAZAWA is directed to a plasma display unit and drive circuit. (See, the Abstract of KANAZAWA), but KANAZAWA does not disclose the problem of suppressing unwanted electromagnetic wave radiation. LAI is directed to a soft switching inverter for an electronic propulsion device, for example an electric motore, that is a replacement for an internal combustion engine. (See abstract of LAI). If the skilled artisan was provided with KANAZAWA and LAI references as suggested in the Office Action, there is nothing in either reference which would suggest the desirability of combining the references. KANAZAWA does not recognize the problem of unwanted electromagnetic wave radiation, and to the extent that LAI teaches the suppression of unwanted EMI, it is in the totally unrelated field of electric motors.

Applicants respectfully submit that LAI's electronic propulsion device is not analogous prior art and not properly cited against the claims of the present invention. A reference is analogous art if it satisfies one of two criteria: (1) it is from the same field of endeavor as that of the applicant, or (2) if not, it is reasonably pertinent to the particular problem with which the

applicant was involved. *In re Clay*, 966 F.2d, 656, 658, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

In the present case it is evident that the electronic propulsion device of LAI does not satisfy criterion (1), since it relates to the field of electric motors, while Applicants' field of endeavor is display panel technology. As for criterion (2), the Examiner asserts that LAI is analogous because it is directed to avoiding EMI interference. However, Applicants' claimed invention is not simply the avoidance of EMI interference. In Applicants' claimed invention, there is a recognition that unwanted electromagnetic wave radiation of 30 MHz or higher needs to be suppressed and that certain capacitances are needed for the suppression. In LAI, there is no disclosure of suppressing unwanted electromagnetic wave radiation of 30 MHz or higher, nor any disclosure of the claimed capacitance values. Thus, LAI is not pertinent to Applicants' particular problem, it is nonanalogous art, and it should not be used to reject the pending claims. *See also, In re GPAC Inc.*, 57 F.3d 1573, 1578 (Fed. Cir. 1995) (analogous art is a field of technology whose selection and adaptation would be suggested or motivated or taught, by sources in the prior art, as relevant to the problem facing this inventor).

It is respectfully submitted that the only reason to combine KANZAWA and LAI in the ways suggested in the Official Action is gleaned from the hindsight provide by Applicants' specification which teaches the desirability of suppressing unwanted electromagnetic wave radiation of 30 MHz or higher. Applicants believe that the Office Action is based upon a selective combination of features found in KANAZAWA and LAI, and that such a selective combination is impermissible. As stated in *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed. Cir. 1985), "When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself." As further stated in *In re Dembiczak*,

175 F.3d 994, 999 (Fed. Cir. 1999), “A mere recitation of the elements of an invention, combined by using the inventor’s own disclosure as a roadmap, cannot make such an invention obvious.”

Accordingly, Applicants respectfully submit that claims 23-25 are patentable over the cited prior art, because without Applicants’ own disclosure, there is no reason to combine the cited references as described in the Official Action.

NEW CLAIMS 26 AND 27

Applicants respectfully submit that new claims 26 and 27 are also patentable over the KANAZAWA and LAI references. Although claims 26 and 27 do not include the same or similar “wherein” clauses as claims 23-25, claims 26 and 27 recite additional features relating to “when said third switching element is turned on, a potential of said interconnector rises and starts to fall from a peak voltage, and thereafter said first switching element is turned on, so that the potential of said interconnector becomes equal to a potential of said first voltage source.” Applicants respectfully submit that this feature is not taught, shown or suggested by either the KANAZAWA or LAI references, and that claims 26 and 27 are patentable over the cited prior art for at least this reason.

CONCLUSION

Applicants submit that the present application is in condition for allowance, and respectfully request an indication to that effect.

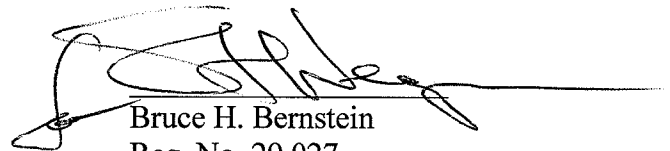
If any extension of time is necessary, this is an express request for any necessary extension of time and authorization to charge any required extension of time fee or any other fees

which may be required to preserve the pendency of the present application to Deposit Account No. 19-0089.

Any amendments to the claims which have been made in this Reply, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attached thereto.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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October 19, 2007
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